KELLER-HASLET ROAD BRIDGE
Texas Historic Bridges Recording Project II
Spanning Henrietta Creek
Haslet
Tarrant County
Texas

HAER No. TX-86

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C St. NW
Washington, DC 20240

HAER
TEX
220-HAS,
1-

HISTORIC AMERICAN ENGINEERING RECORD

KELLER-HASLET ROAD BRIDGE HAER No. TX-86

Location: Spans Henrietta Creek on FM 156,
0.2 miles East of Haslet, Tarrant County, Texas
UTM: 14/654855/364940
USGS Quad: Keller, Tex.
(7.5 minute series, 1955, photographic revision, 1981)

Date of Construction: 1929

Builder: Clardy Brothers Bridge Company

Present Owner: Tarrant County

Present Use: Roadway bridge

Significance: In 1939, the U.S. Works Project Administration (WPA) refurbished the steel and replaced the wooden deck with cement as part of the 1938 WPA Bridge & Culvert Project in Tarrant County, Texas. Special features of the Keller-Haslet Road Bridge include latticed diagonals and buttressed supports. The current concrete deck (originally timber) is 20'-8" wide, carries two 10'-0" lanes, and is reinforced with steel bars; there are no shoulders. A WPA medallion is located at the east end of the bridge on the north side.

Historian: Peggy Hardman, Ph.D., August 2000

Project Information: This document was prepared as a part of the Texas Historic Bridges Recording Project II performed during the summer of 2000 by the Historic American Engineering Record (HAER). The project was sponsored by the Texas Department of Transportation (TxDOT).

The Keller-Haslet Warren pony truss with verticals is single-span, riveted, 9 panel bridge. Built in 1929 by the Clardy Bridge Company, the bridge is longer, at 100", than most of its type spanning similar intermittent streams in Texas.[1] The current concrete deck (originally timber) is 20'-8" wide, carries two 10'-0" lanes, and is reinforced with steel piers, and there is an 8" curb on either side of the deck. Both the bottom and top "hand railing" is of 3" diameter pipe. Steel on the bridge is stamped "Colorado," probably from Colorado Fuel & Iron, in Pueblo, Colorado. There are no bridge plates, but a survey marker and WPA medallion are still affixed.[2] No information has been located to further document the Clardy Bridge Company. In the 1920's the Highway Department was coming into its own, and private firms often could not compete against the state and county construction divisions. It may be the Clardy Brothers built this one bridge, then turned to other construction work.

On April 15, 1929, commissioners in Tarrant County, Texas, solicited bids the "construction of [a] Henrietta Creek Bridge" in Precinct 4.[3] Minutes from 13 May, 1929, called for the "dismantling, or wrecking [of the] old Henrietta Creek Bridge" (minutes do not indicate structure type).[4] Clardy Brother won the contract, and built a Warren Pony Truss at the Henrietta Creek site, on Highway 156 just east of Haslet, Texas. The bridge not only spanned Henrietta Creek on the road linking the rural communities of Keller and Haslet but it also provided access to the Gulf, Colorado & Santa Fe Railroad station inside Haslet city limits.[5]

Tarrant County is in north central Texas; Fort Worth is the county seat. In the 1840s, when quarrels between Anglo settlers and the Comanche Indians abated, the Texas Congress encouraged settlement by offering large land grants to companies agreeing to advertise and help establish settlers in what became Tarrant County. Cattle and railroads generated great growth in the county, especially at Fort Worth where, in 1876, the Texas and Pacific Railroad located to create a link between Texas cattle ranchers and the cattle markets of the East and Midwest. At the beginning of the twentieth century, the meat packing firms of Swift and Armour established themselves in Fort Worth. Oil refineries began to appear in 1920. Other equally important

---

[1] 1929 Construction Drawings at the Tarrant County, Texas, Transportation Services Department, Fort Worth, Texas.

[2] Southwestern Brass Works made the bronze markers for the WPA projects. At least 200 were purchased at $1.72.5. The markers were cast from 85 percent copper, 5 percent tin, 5 percent lead, and 5 percent zinc, and coated with a clear laquer finish. *Minutes of the Tarrant County Commissioners' Court,* Tarrant County, Texas, 12 January 1939.

[3] Minutes, 15 April, 1929.

[4] Minute, 13 May, 1929.

[5] Texas Department of Transportation, *Texas Historical Bridge Inventory*, 3 June 1987.

industries included bakeries, publishing firms, and aviation industries. In 1927, Fort Worth's Meacham Air Field opened.[6]

The Great Depression slowed the county's expansion, and after 1933, New Deal programs became a part of Tarrant County life. During the depression, the federal government allocated about $15 million for work projects in the area. After World War II, the county's economy rebounded sharply, and once again aviation industries, like Bell Helicopter, led the way. The resulting increase in population put pressure on the infrastructure, inspiring a period of road development and improvement that included the Dallas-Fort Worth Turnpike (this later became part of Interstate Highway 30 that opened in 1957).[7] The seats of the Tarrant and Dallas counties sprawl toward each other creating the Fort Worth-Dallas Metroplex.

Evidence of the area's phenomenal growth may be seen at Alliance Texas, a light industry/warehouse and airfield development created by Ross Perot, Jr., just east of the Keller-Haslet Road Bridge. The commercial entrepot with its numerous rail and truck terminals is the "largest intermodal transportation center in the United States."[8] The impact on the Haslet community and the bridge at Henrietta Creek is enormous.

The community of Haslet is sixteen miles northwest of Fort Worth almost on the official Wise County line. The first settlers arrived around 1880, but no community emerged until the arrival of the Gulf, Colorado and Santa Fe Railway in 1883. Primarily a farming community, the origins of the town's name are three-fold. The most common story suggests the railroad contractor's home in Michigan as the name's origin.[9] A more colorful tale offers the name derived from a telegram sent to the railroad by rancher Charles L. Maloney, one of Haslet's first settlers, when he relented and agreed to allow the railway through his land. The telegram read: "Mr. Maloney HAS LET the railroad through."[10] The third story reports the town named for Day Haslet, a rancher who readily agreed to let the railroad go through his place.[11]

Haslet, in modern times a commuter community for Fort Worth, is now a bedroom community of Alliance Texas. When Alliance incorporated in the 1980s, Haslet population stood at 262; by 1996 it reached 1,050. The old Keller-Haslet Road attests to the changing landscape of the area. Today, it is called Westport Parkway, and carries more than 300 semi-

[6] W. Kellon Hightower, "Tarrant County," in *The New Handbook of Texas*, vol. 6 (Austin: Texas Historical Commission), 207-208.

[7] Hightower, "Tarrant County,"

[8] Texas Department of Transportation, Mitigation Report, 20 July 2000. Texas Department of Transportation, Austin, Texas.

[9] Brain Hart, "Haslet, Texas," in *The New Handbook of Texas*, vol. 3, 502.

[10] Fort Worth, *Star-Telegram*, 21 November, 1996.

[11] *Star-Telegram*, 2 June 1996.

trucks from Alliance industries and warehouses. The Keller-Haslet Road Bridge bears the brunt of much of this traffic. Because it was not designed for the size of modern trucks and other vehicles, it is now functioning as a one-way bridge and is load posted at 20 tons, nearly three times less than current legal load limits.[12]

Keller, Texas, like Haslet, faces many of the same growing pains. On U.S. Highway 377, fifteen miles north of Fort Worth, it also began to develop with the arrival of the railroad. The Texas Pacific arrived somewhere between 1881 and 1882, but it remained primarily a farming community. In the latter half of the twentieth century, the town's location caused it to be swept up in the development of the Dallas-Fort Worth International Airport Complex.[13] Farm to Market Road 156 and Henrietta Creek intersect in Haslet. Periodic flooding and increasing traffic meant the bridge carried heavier loads than originally intended. A timber structure existed prior to the 1929 Warren Pony Truss, but by the 1920s the simple, relatively small steel spans had become the favorite of communities needing sturdy bridges over periodically raging creeks. Usually shipped in a kit, ready to be assembled on site, metal truss spans proved well suited for small communities in rural areas. The metal truss bridge began replacing timber structures throughout Texas by 1900.

The Warren truss, invented in England in the 1840s, and named for engineer/inventor, James Warren, became a favorite among highway departments by the 1920s. It is recognized by the triangles in the webbing that creates a unique "W" shape. The rigid diagonals are alternately subjected to tension and compression by the weight of the load traveling across the structure. Originally a pinned truss, by the first decade of the twentieth century, bridge builders used a connection method combining shop riveting and field bolting.[14]

Time and wear took its toll on 1929 Keller-Haslet Road Bridge. By the Great Depression, the steel needed repairing and replacing, as did the timber deck. When WPA funding came to Texas, Tarrant County proposed a program of construction featuring culverts and bridges. Generally, the WPA did not build steel bridges, but did do an enormous amount wood, masonry, and cement construction, especially culverts. Between 1935 and 1943, the WPA constructed "78,000 new bridges and viaducts and improved more than 46,000 others." Of that impressive number, 81,000 were of wood.[15] WPA projects used reinforced concrete very extensively.

---

[12] Texas Department of Transportation, Mitigation Report, 20 July 2000. Texas Department of Transportation, Austin, Texas.

[13] Joyce Gibson Roach, "Keller, Texas," *The New Handbook of Texas,* 3:1049.

[14] Joseph E. King, *Spans of Time: Oklahoma Historic Highway Bridges,* (Oklahoma City: Oklahoma Department of Transportation, 1993), 35,45.

[15] *U.S. Works Progress Administration Final Report on the WPA Program, 1935-43* (Washington, D.C.: U.S. Government Printing Office, 1943), 53.

Accordingly, county highway officials opted to include a new deck on the Keller-Haslet Road Bridge as part of the work program.[16] As none of the proposed work required highly skilled labor, the local labor pool could be hired to do all the necessary repair and reconstruction on the Road Bridge.[17]

Work commenced on 27 May ended 3 July 1939, and cost $1,431.86.[18] Overseeing the project was WPA Foreman, Phil Brothers, and J. W. McCain, County Foreman. John "Henry" Cook held the post of County Engineer, and in 1938 became the engineer in charge of Federal Aid Projects in Tarrant County. Will L. Kelly, a Bridge Design Engineer, also served on the project.[19] Cook, born January 19, 1905, in Frisco, Texas, attended Fort Worth public schools, then received his training in civil engineering from the International Correspondence School (I.C.S.) between 1926 and 1931. His entire career seems to have been spent in Fort Worth and Tarrant County. At the time of his last known registration as a Professional Engineer, he held the post of Director, in the Utility Division of Highways, Utilities, and Planning Section.[20]

Born in Comanche, Texas in 1894, Will L. Kelly held membership in the American Society of Civil Engineers in both New York and Texas. After public school in Goldthwaite, Texas, Kelly received his engineering education as a "student of Night Engineering" in Arlington, Texas at N.T.A.C., and took preparatory courses from the International Correspondence School (I.C.S.). He received license to practice as a professional engineer in the spring of 1938. Kelly spent his engineering career in the Fort Worth area. In the early 1930s he worked in the County Engineer's Office as an assistant to widely recognized and acclaimed Dallas engineer, F. D. Hughes. Kelly assisted Hughes on the construction of the Belknap Street Viaduct. In 1933 Kelly became Bridge Engineer for Tarrant County, and in 1935, County Engineer. Before his death on 9 September, 1963, he worked in private practice in Longview,

Work done on the Keller-Haslet Road Bridge included a "new concrete floor," and repair/replacement of steel members. New material included 9- 8" x 17" x 10'-6 11/16" I-Beams; 9 – 8" x 17" x 30'-4 5/16" I-Beams; 18- 8" x 17" x 29'-8 3/16" I-Beams; 2 - 7" x 4" x 18.8# x 22'-0" Channels; 54-6" x ¼" x 0'-6" Plates; 4 – 12" x 3/8" x 1'-6" Plates; 36 – 6" x6" x 3/8 x 0-5 ½" Angles; 8 – 3" x 3" x 3/8 x 0'-9 78" Angles; 32 – ¾" x 2' –8" Rods with 2'-5 ¾"

---

[16] *U.S. Works Progress Administration Final Report.*

[17] WPA Project No. 4042. Notations on the WPA record indicate the "1929 bridge received a new concrete floor," repairs were done, and steel replaced. Also, *U.S. WPA Final Report*, 53.

[18] WPA Project No. 4042.

[19] *Minutes*, 1939.

[20] John Henry Cook, "Application for Registration to Practice Professional Engineering," 5 May 1938.

Pipe Separators complete; 8 – 1/" U-Bolts; 44 – ½" U-Bolts; 66 – ¾ x 0'-2" Bolts complete; 20 – 4" x 0'-11" Cast Iron Drains & Pipe.[21]

The two-month long project gave Haslet a refurbished and sturdier bridge. Maybe more important, once workers affixed the WPA Bronze medallion the bridge took on historic purpose. Serving two rural communities, and providing not only stream crossing, but access to the railway depot in Haslet, the Keller-Haslet Road Bridge functioned well until the development of Alliance Texas in the 1980s. Time and growth of the area once again took its toll.

Today the bridge has structural defects, including map cracking with leaching at several locations; collision damage on the northwest side at the southeast ends; concrete spalling; rusting; severe scouring on the eastern abutment; and in rainy periods, water standing on the deck, because of clogged drain ports. Designed for vehicles of the 1920s and 1930s, the bridge is now unsafe for the continuous stream of traffic crossing it daily, especially the hundreds of semitractor trailers coming from the industrial area and airport.

The Texas Department of Transportation is working to remove and relocate the simple, yet important 100' Warren Pony Truss. Hopefully, in the fall of 2000, the town of Keller will adopt the bridge and integrate it into its Keller Sports Park as a hike/bike trail. Although formally known today as the Westport Parkway Bridge, the structure has served its constituents of Keller and Haslet, Texas, for nearly a century, and deserves to be of continued service.

[21] WPA Project No. 4042. "Miscellaneous Details, Henrietta Creek Bridge," Tarrant County Highway Department.

SOURCES CONSULTED

Cook, John Henry. "Application for Registration to Practice Professional Engineering," 1938. Texas State Board of Registration for Professional engineers, Austin, Texas.

Final Report on the WPA Program, 1935-43. Washington, D.C.: U.S. Government Printing Office, 1943.

Fort Worth, *Star-Telegram,* 7 September 1938.

Fort Worth, *Star-Telegram,* 23 March 1939.

Kelly, Will L. "Application for Registration to Practice Professional Engineering," 1938. Texas State Board of Registration for Professional Engineers, Austin, Texas.

King Joseph E. *Spans of Time: Oklahoma Historic Highway Bridges.* Oklahoma City: Oklahoma Department of Transportation, 1993.

Minutes of the Tarrant County Commissioners Court. Tarrant County Administration Building, Fort Worth, Texas.

St. Clair, Kathleen E. *Little Towns of Texas.* Jacksonville, Texas: JAYROE Graphic Arts, Inc., 1982.

Stocklin, Barbara. "Statement of Historic Contexts." *Historic Bridges of Texas, 1866-1945.* Washington, D.C.: National Parks Service, Department of the Interior, 1996.

Tyler, Ron, Ed. *The New Handbook of Texas.* Austin: Texas State Historical Association, 1996.

Works Project Administration, Project No. 4042, "Miscellaneous Details, Henrietta Creek Bridge," 1939.